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ABSTRACT

Since 1980, efforts to strengthen the academic preparation of students for college have been made on national, regional, state, and local levels. Cited as evidence of a problem in academic preparation have been: (1) the decline in students' college admission test scores in language, study, and computing skills over the past 17 years; (2) low minimum competency test results; (3) the high school dropout and unemployment rates; (4) overly diversified curricula lacking integration of instruction from the high school to college level; and (5) increasingly diverse student bodies with a large number of limited English-speaking students. Specific recommendations from nationwide commissions and public hearings center around articulation, collaboration, standardization, and accountability. A variety of collaborative efforts have already been undertaken, including the exchange of academic personnel; assessment of skills, particularly in writing and mathematics; and concurrent enrollment of high school students in college courses. Besides general high school-college collaboration, prematriculation programs have also been designed for specific groups, including talented students and underprepared or unmotivated students. Research in this field has been concerned primarily with the effectiveness of prematriculation programs, the relationship of standardized tests and high school curriculum, or student attitudes and college expectations. (JMC)

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Academic Preparation for College: What We Know and Where We Need to Go

by JoAnn Carter-Wells

Although the concern for academically underprepared students had been addressed as early as 1896 when John Dewey presented the conflicting demands for adequate preparation imposed on high school students by colleges and universities, this topic did not receive full national attention until the 80's. Even though, on one hand, it may appear to be a fairly concise and limited topic, it is quite broad, complex, and multifacted. The purpose of this article, then, is to provide additional background, a national perspective, a summary of collaborative efforts, related research, and future directions gleaned from the literature.

Background

A primary impetus for this movement was a 1980 commitment from the College Board to dedicate the next decade to strengthening the academic preparation of all students for college. Project EQuality was the result of this commitment, and it began with a comprehensive nationwide review of the college preparatory curriculum in the U.S. Hundreds of school and college teachers participated in recommending a basic academic curriculum stated in terms of learning outcomes covering the subject matter areas of English, mathematics, history/social studies, foreign or second language, natural science, and visual and performing arts. In addition, six basic academic competencies were identified: reading, writing, listening and speaking, mathematics, reasoning, and studying. These recommendations were disseminated through a College Board publication entitled *Academic Preparation for College: What Students Need to Know and Be Able to Do* (College Entrance Examination Board, 1981, 1983; Preer, 1983).

In addition, national hearings focusing on this issue ensued during the early part of this decade. Major reasons cited for the academic preparation gap that widened in the 60's were the displacement of a traditional curriculum with a variable general education curriculum, a general reaction against mathematics and science, and the elimination of foreign language requirements (Cross, 1983; National Commission on Excellence in Education, 1982). This concern for academically underprepared students is not restricted to particular segments of higher education. Institutions such as Vassar and Cornell have likewise expressed concerns (Brier, 1985). As early as 1977, Stanford reported considerable variation in the number of solid academic courses taken by high school students and that capable students appear to undertake relatively light academic programs (Hargadon, 1982).

What was begun with the College Board and continued through the National Commission on Excellence in Education has raised the national consciousness about this problem that has continued throughout the decade.

National Perspective

As previously mentioned, following the leadership of the College Board, academic preparation for college has become a concern of practically every aspect of national life. Related problems and recommendations have been the focus of countless state and regional commissions and public hearings including those in California, Illinois, Louisiana, Minnesota, New Jersey, New Mexico, Ohio, Texas, Washington, Wisconsin, and the South.

The problem has been considered in terms of its historical, demographic, and social context. Cited as indicators of evidence of the problem have been the decline in students' college admission test scores over 17 years in language, study, and computing skills; low minimum competency test results; the high school drop-out and unemployment rates; an overly diversified curriculum with a lack of integration of instruction from the high school to college level; and increasingly diverse student bodies with a large number of limited English-speaking students. Three additional factors discussed have been a high student-counselor ratio with poor student advisement, secondary school finance problems, and teacher lay-offs with low morale (Kenny & Carlson, 1982; Kinnison, 1982; Mitchem, 1982; Scherini, 1981; Vaccaro, 1982).

The myriad of specific recommendations from these commissions and public hearings can be characterized as articulation, collaboration, standardization, and accountability. The list includes standardizing and upgrading the quality of prematriculation college prep curriculum in reading, writing, and mathematics; improving teacher education; tightening graduation requirements; systematically collecting and reporting data regarding competency and student progress toward meeting college-level standards; establishing joint councils of college/school boards with accountability for statewide educational policies; and standardizing the authority for setting standards and curricula for high school teachers. Other recommendations support enhancing communication between students, parents, and educators at all levels and providing remedial coursework in writing, reading, and mathematics (Bandy, 1982; Davidson, 1983; Farland & Anderson, 1988; Illinois State Board of Higher Education, 1986; Lutkus, 1985; New Mexico State Department of Education, 1987;

Ohio Board of Regents, 1981; Southern Regional Education Board, 1985; Texas Higher Education Coordinating Board, 1989.)

Specific recommendations in mathematics are usually aimed at increasing the number (more than three) and type of college prep math courses: specifically algebra and geometry (Waits & Demana, 1988; Whitesitt, 1982). An interesting report prepared by the Minnesota Higher Education Coordinating Board (1986) even included three typical reading assignments in college literature, social science, and science courses. Finally, one interesting recommendation is that national accreditation can play a role in college prep programs through the reshaping of accreditation procedures and changes in WASC's Accrediting Commission for schools and its relationship with other WASC commissions (California State University, Long Beach, 1984).

A Summary of Collaborative Efforts

There has been a flurry of projects initiated as a response to Project EQuality and the reports of state commissions and public hearings. In 1986, Bailey reported that there were 13 model high school-college collaboratives across the country implementing the College Board's (1983) "Green Book" of recommendations.

The variety of other collaboratives include the exchange of academic personnel, assessment of skills particularly in writing and mathematics, and concurrent enrollment of high school students in college courses.

College faculty have been used in cooperative development projects in specific disciplines, in speaker's bureaus to discuss the importance of a solid foundation in mathematics with high schools students, and with in-service writing projects using guest lecturers and summer writing institutes such as the Bay Area Writing Project (Adelman, 1983; Cappucilli, 1982; Cox, 1982; Tomhave, 1985).

The assessment of potential college skills with diagnostic testing and special coursework in writing and mathematics has been the emphasis of many other collaboratives including the California Academic Partnership Program (Bordner, 1985; California Postsecondary Education Commission, 1985; Schell, 1982).

Concurrent enrollment of high school students in college courses often being offered on a high school campus is another type of collaborative (Smith, 1979). A Carnegie Foundation report (Maeroff, 1983) also suggested the development of experimental transition schools that would combine the school-college years and thus avoid curricular overlap and duplication. A model program called the Marshal Plan was developed in Milwaukee. This program included visits by students and parents to college and the publication of a brochure listing recommended college prep courses (Mickelson & Sperry, 1984).

Besides general high school-college collaboration, there have been prematriculation programs designed for specific groups. Most common have been those for talented students with features such as early admission, joint or summer enrollment, and research and internship positions (Cornett, 1986; Dallas, 1982). There are also programs aimed at underprepared or not highly motivated students typically for minorities such as the Hispanics or Blacks (Fields, 1987). Specific activities are tutoring programs, financial aid, curriculum development, and Spanish-language and Hispanic-oriented recruitment and encouragement efforts. Interestingly, Harold Hodgkinson (1986) has reported that one of the primary reasons that many California Hispanics who had sufficient grades did not go to college was the lack of proper counseling regarding admissions requirements and testing.

Remediation

An obvious corollary to this topic is that of remediation. However, there seem to be contradictory recommendations regarding remedial programs and the role of academic support services. Many universities both perceive the need to continue with remedial courses and activites as well as plan to consider alternatives such as utilizing community college to "solve the problem" of underprepared students (Myers, 1984). Some institutions are concerned that remedial programs lower academic quality as well as the value of the degree. Instead, they recommend raising admission requirements and tightening academic standards. Further, many states that have previously supported remediation activities are planning to phase out future funding to all but open door institutions (Myers, 1983).

Finally, there seem to be two extended directions in which we are heading. One is statewide mandated competency testing of students in reading, writing, and mathematics such as that being implemented by Minnesota, New Jersey, and Texas; these mandates instituting competencies often identified beyond the original 1983 College Board lists. Obviously, remedial programs for entering freshmen will expand with these types of programs. The other direction (which represents a totally different educational philosophy and perspective) is in the form of the Freshman Year Experience with seminars designed for entering students of all abilities that include counseling and academic survival content (Upcraft, Gardner, & Associates, 1989). This program is built upon the philosophy that students are not "finished learners" when they enter college and that much of the college experience cannot be "taught" while in high school.

Related Research

The extremely small number of studies related to this issue have been primarily concerned with the effectiveness of prematriculation programs, the relationship of standardized tests and high school curriculum, or with student attitudes and college expectations.

Three studies evaluated the effectiveness of prematriculation programs for primarily minority students that included coursework, counseling, and diagnostic testing. The SCORE FOR COLLEGE program in California also included motivational and parent involvment activities. Johnson (1983) reported increased enrollment at a four-year university, improved academic performance and attitudes, and better study habits. The results of a controlled study with the REACH program at Valencia Community College (1987) show that Black high school students who participated in both a 10-week college prep program and a summer skills enhancement program had a higher passing rate for community college courses in reading, English, and other courses than the control group which received no special preparation. Lastly, a program aimed at the junior high level to affect early college preparation and attitudes was initiated in Alaska (Craddick, 1986). Entitled the Early College Incentive Program (ECIP), this program attempted to expose junior high students to college learning and living requirements, reduce cultural shock, and excite students about college opportunities. In a study with two control groups, students in ECIP received higher GPA's.

Another relevant study linked standardized tests and curriculum. This study examined the relationship between ACT test scores and high school courses. Laing et al. (1987) reported that, on the average, students who had taken more coursework in the college prep curriculum areas of English, mathematics, natural science, and social studies earned higher standard scores on the corresponding ACT test.

Finally, two studies have focused on students' perceptions of their high school academic experiences in preparing them for college. In a study by Losack et al. (1982), basic skills community college students reported that too little had been expected of them in high school and that they had benefited from the college remedial program they had taken. Similarly, nonremedial college students who matriculated directly to a four-year university reported the same experience (Carter-Wells, 1988). The majority of the 300 students in this study reported that college was harder than they expected it to be particularly in the areas of reading, English/writing, studying/learning, and mathematics. In this same study, those students who had taken special college prep courses also responded that they were "unprepared for college" in many of the special skills in reading, studying, writing, and reasoning that were specificially listed on the College Board competency list.

Future Directions

Where do we go from here? It seems probable that academic preparation for college will enter a new era in the next decade with increased articulation, collaboration, and standardization/accountability efforts. Much earlier prematriculation efforts (before the junior year) focusing on the value of higher education appear vital. In fact, there appear to be no "competencies" on any of the college prep lists for attitude and values; rather, skills, abilities, and knowledge are listed. However, success in college requires more than mastery of content. In addition, possible modifications to the SAT with expanded critical reading and mathematics sections could affect college prep programs as well (*Collaborative Study under way to Consider Future Changes to the SAT*, 1989).

Research is desperately needed to study the effectiveness of these large-scale programs/partnerships/collaboratives and validate the College Board list of competencies. Interestingly, none of the literature addresses the relationship between academic preparation for college and the important issues of corresponding compensatory, remedial, and developmental programs.

Finally, it may be proposed that students may not ever truly be academically prepared for college (Upcraft, Gardner, & Associates, 1989). There are unique learning, reading, and thinking demands of the postsecondary environment that are not merely extensions of a high school experience for which students cannot possibly be completely prepared. In addition, according to developmental psychologists such as William Perry (1970), many entering students have not achieved the level of maturation necesary for college succes. Rather, academic and social experiences in the postsecondary environment help to foster maturation that will, in turn, enhance successful learning opportunities.

Historially, American higher education has never enjoyed an entering population of students well prepared for the demands of postsecondary institutions. Hopefully, this national focus on the issue of academic preparation for college will ultimately provide solutions to ensure the continued growth and vitality of our postsecondary educational system into the 20th century.

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